

*Mike Powell*

An Issue Specific Traffic Impact Study

For

The Village Walk Townhomes

Prepared for

The County of San Diego

And

LB Village Investments - LLC

On

July 20, 2009

By

Katz Okitsu & Associates  
5095 Murphy Canyon Rd. #330  
San Diego, CA 92123

Sub-Consultant  
Federhart & Associates

COUNTY OF SAN DIEGO

MEMORANDUM OF UNDERSTANDING  
ENVIRONMENTAL IMPACT REPORT / TECHNICAL STUDY PREPARATION  
AND HANDLING OF [REDACTED]

This AGREEMENT, hereinafter referred as the "MOU", is made and entered into by and between the County of San Diego, ("COUNTY"), STEVE POWELL ("APPLICANT"), J. ARNOLD TORMA ("CONSULTANT"), and KOA CORPORATION ("FIRM" which employs the consultant, if applicable) for the purpose of establishing rights and responsibilities of all undersigned parties hereto in relation to the preparation and handling of a TECHNICAL STUDY or ENVIRONMENTAL IMPACT REPORT ("EIR") for the above-referenced project ("PROJECT").

WHEREAS, the COUNTY is the Lead Agency with the land use and planning jurisdiction in the above-referenced PROJECT area of unincorporated San Diego County, as it pertains to the California Environmental Quality Act ("CEQA"); and

WHEREAS, the APPLICANT has submitted an application for development of the above-referenced PROJECT; and

WHEREAS, the COUNTY has determined that the PROJECT necessitates the preparation of a TECHNICAL STUDY / EIR; and

WHEREAS, the CONSULTANT is a professional environmental consultant included on the County official CEQA Consultant List for the applicable Subject Area (All CONSULTANT rights and responsibilities within this MOU extend to the FIRM, which employs the consultant (if applicable), and any consultant hired to assist with the preparation of the TECHNICAL STUDY / EIR); and

WHEREAS, the APPLICANT, CONSULTANT, and COUNTY understand and agree that CONSULTANT has the primary responsibility to ensure that the TECHNICAL STUDY / EIR is adequate and COUNTY review is for the benefit of the public generally and not for the benefit of the APPLICANT or CONSULTANT; and

WHEREAS, the APPLICANT, CONSULTANT, and COUNTY wish to define their relationships and areas of responsibility in the preparation and management of a TECHNICAL STUDY / EIR and the CEQA process.

NOW, THEREFORE, in view of the foregoing, and in consideration of the mutual covenants and agreements contained herein, the APPLICANT, CONSULTANT, and COUNTY do hereby agree as follows:

Comment (m1): BE sure to f  
Project number in the left side of  
the header. The subject area shot  
left blank as only one copy shot  
attached. The applicant must  
execute an MOU with each of the  
applicable consultants listed below  
and they will fill out the subject  
on the right side of the header.

Comment (m2): PROJECT N

Comment (m3):

**• RELEVANT OF A TECHNICAL STUDY OR EIR**

The COUNTY has determined that the PROJECT necessitates the preparation of a TECHNICAL STUDY / EIR.

**II. SUBMISSION OF DOCUMENTS AND DISCLOSURE OF INFORMATION**

The APPLICANT and CONSULTANT shall submit all environmental documents under this MOU pursuant to the terms and conditions set forth herein and in accordance with the "County of San Diego CEQA Guidelines."

This MOU requires the disclosure of certain information by the APPLICANT and CONSULTANT to the COUNTY. Disclosure may initially be through verbal communication with the COUNTY Project Manager. The COUNTY maintains the right, upon reasonable notice to the APPLICANT and CONSULTANT, to: 1) review draft documents and relevant correspondence; 2) require that it be copied on correspondence subject to the disclosure requirements; and/or 3) require a written or emailed (instead of verbal) report of disclosures.

**III. CERTIFICATIONS**

By executing this MOU:

- A. The APPLICANT certifies that it has an ongoing obligation and commitment to the COUNTY to disclose all information that is relevant to the environmental consequences of the PROJECT and the preparation of the TECHNICAL STUDY / EIR, and further certifies that no relevant information has been or will be omitted or withheld from the COUNTY, the CONSULTANT, or any sub-consultant(s).

- B. The CONSULTANT certifies:

That it is included on the COUNTY official CEQA Consultant List for the applicable Subject Area (or the COUNTY official Environmental Consultants List if the list has not been reestablished pursuant to the February 28, 2006 COUNTY CEQA Guidelines) and it is prepared to undertake all necessary technical and analytical work required in conjunction with the TECHNICAL STUDY / EIR, either directly, under the CONSULTANT's direct supervision and management, and/or through the use of any sub-consultant(s); and

#### **IV. APPLICANT'S RIGHTS AND RESPONSIBILITIES**

- A. Subject to the terms and conditions of this MOU and County CEQA Guidelines, the COUNTY agrees to allow the APPLICANT to select and retain the undersigned CONSULTANT for preparation of the TECHNICAL STUDY / EIR. For this purpose, the APPLICANT shall enter into a direct agreement with the CONSULTANT, and such agreement shall govern the entire scope of their arrangement. Such agreement shall comply with all terms and conditions set forth in this MOU, and no term therein shall be inconsistent with any provision herein.
- B. The APPLICANT shall be responsible for one hundred-percent (100%) of all costs associated with the CONSULTANT's work, including but not limited to, any sub-consultant(s) costs, TECHNICAL STUDY / EIR preparation and document circulation costs incurred by the APPLICANT or CONSULTANT, and all costs associated with participation in scoping meetings or community outreach meetings, as necessary. The APPLICANT shall also be responsible for one hundred-percent (100%) of all costs incurred by the COUNTY related to its independent review of the TECHNICAL STUDY / EIR.
- C. The APPLICANT shall ensure that any consultant(s) hired in conjunction with the preparation of the TECHNICAL STUDY / EIR and related to the PROJECT shall comply with the COUNTY CEQA Guidelines and all relevant terms and conditions set forth in this MOU.
- D. The APPLICANT shall not enter into any form of confidentiality agreement with the CONSULTANT or any other consultant hired to assist with the preparation of the TECHNICAL STUDY / EIR, which prohibits disclosure of information related to substantive land use or environmental issues to the COUNTY. This provision may be waived or modified at the discretion of the COUNTY, if such an agreement would reveal a trade secret as defined by Government Code Section 6254.7.

#### **V. CONSULTANT'S RIGHTS AND RESPONSIBILITIES**

- A. The CONSULTANT shall have an ongoing obligation and commitment to the COUNTY to disclose all information within its Subject Area that is relevant to the environmental consequences of the PROJECT and the preparation of the TECHNICAL

- STUDIES / EIR. The CONSULTANT shall not omit or withhold any relevant information from the COUNTY at the request of the APPLICANT or for any other reason. The CONSULTANT shall require any CONSULTANT-hired sub-consultant(s) to certify these same obligations and commitments to the COUNTY as a condition of their contract or by signing a copy of this MOU and shall provide a copy of such certification to the COUNTY within ten (10) days of retaining such sub-consultant(s).
- B. The CONSULTANT shall enter into a direct agreement with the APPLICANT for purposes of preparing the TECHNICAL STUDY / EIR, and such agreement shall govern the entire scope of their arrangement. Such agreement shall comply with all terms and conditions set forth in this MOU, and no term therein shall be inconsistent with any provision herein.
  - C. The CONSULTANT's responsibility is to provide a complete and accurate TECHNICAL STUDY / EIR. The CONSULTANT's accountability under this MOU shall be solely to the COUNTY, and not to the APPLICANT or to any other person or entity.
  - D. The CONSULTANT shall ensure that any sub-consultant(s) hired by the CONSULTANT in conjunction with the preparation of the TECHNICAL STUDY / EIR shall comply with the COUNTY CEQA Guidelines and all relevant terms and conditions set forth in this MOU.
  - E. The CONSULTANT shall draft the TECHNICAL STUDY / EIR for the PROJECT in accordance with CEQA, State CEQA Guidelines, COUNTY CEQA Guidelines, relevant COUNTY technical study and EIR content and report formats, and with the directions and specifications set forth by the COUNTY.
  - F. The CONSULTANT shall verify and ensure that all TECHNICAL STUDY / EIR documents prepared under its contract utilize accurate and verifiable field techniques and professional work performance standards, and are in conformance with all applicable CEQA requirements, and all applicable County, State, and Federal rules, regulations and laws.
  - G. The CONSULTANT shall verify and ensure that all TECHNICAL STUDY / EIR documents prepared under its contract, including the draft EIR, final EIR, TECHNICAL STUDIES, and response to comments (as applicable), represent its complete and independent professional judgment including all COUNTY

direction and provide an analysis of the specific environmental issues, setting, potential impacts, and mitigation measures associated with the PROJECT. Notwithstanding the above responsibility, all CEQA documents shall reflect the independent judgment of the COUNTY. The TECHNICAL STUDY / EIR shall be signed as true and accurate by CONSULTANT.

- H. The CONSULTANT shall disclose any revisions made to the draft TECHNICAL STUDY / EIR and specifically identify any revisions made at the request of the applicant. Unless waived by the COUNTY, all revisions to CEQA documents prior to submittal for public review shall be shown in strikeout/underline.
- I. The CONSULTANT shall maintain a record of communications with the APPLICANT related to substantive land use or environmental issues, and such record shall be submitted to the COUNTY for review upon request.
- J. The COUNTY shall retain the right to attend, or participate in, meetings (including conference calls) between the APPLICANT and the CONSULTANT when such meetings include discussion of substantive land use or environmental issues and has the right to request such meetings. The CONSULTANT shall provide the COUNTY with reasonable notice of all such meetings at the earliest time possible and no less than one business day. Upon the request of the COUNTY, the CONSULTANT shall disclose all substantive land use and environmental issues discussed at meetings the COUNTY does not attend. At the discretion of the COUNTY, notice of meetings may be waived in lieu of periodic summary reports disclosing issues discussed.
- K. The CONSULTANT may not be a subsidiary or division of the APPLICANT or have an ownership interest in the proposed PROJECT or any other property or development in which the APPLICANT has a financial interest. Additionally, the CONSULTANT shall not accept performance incentives associated with a certain density, intensity, or configuration of development. This prohibition does not preclude performance incentives related to project schedules.
- L. The CONSULTANT shall not enter into any form of confidentiality agreement with the APPLICANT or any sub-consultant(s), which prohibits disclosure of information related to substantive land use or environmental issues to the COUNTY. This provision may be waived or modified at the discretion of the

COUNTY, if such an agreement would reveal a trade secret as defined by Government Code Section 6254.7.

- M. The CONSULTANT shall always disclose to the COUNTY Project Manager all project related emails and written correspondence between the APPLICANT and CONSULTANT regarding substantive land use or environmental issues, unless waived by the COUNTY.
- N. Upon request from the COUNTY, the CONSULTANT shall submit all field notes, resource documents and supplemental technical studies used in the preparation of the TECHNICAL STUDY / EIR to the COUNTY.
- O. Upon request from the COUNTY, the CONSULTANT shall allow the COUNTY to view its contract with the APPLICANT. The COUNTY maintains the right to require submittal of the contract to the COUNTY. Any cost estimates or hourly rates may be blacked out or omitted.

#### **VI. COUNTY'S RIGHTS AND RESPONSIBILITIES**

- A. In accordance with the Public Resources Code Section 21082.1, it is the responsibility of the COUNTY to provide its independent review and analysis of all documentation for the PROJECT prepared and submitted by the CONSULTANT, and sub-consultant(s), and the APPLICANT. This independent review is undertaken for the benefit of the general public and is not intended to relieve the consultant of any of its responsibilities.
- B. The COUNTY shall be responsible for evaluating the extent and detail of topic area discussions in the TECHNICAL STUDY / EIR. The COUNTY shall also be responsible for scheduling and providing the public notice for the public meetings and hearings related to the PROJECT, and for distributing the draft and final EIR or other applicable CEQA document.
- C. The COUNTY shall have the right to reasonable notice and to attend, or participate in, any and all meetings or conference calls as described in paragraph V.J of this MOU, and has the right to request such meetings and be informed of the subject matter.
- D. The COUNTY shall have the right to request copies of any and all correspondence, meeting schedules, minutes, and draft documents generated by the CONSULTANT, any sub-consultant(s) and the APPLICANT, in connection with the preparation of the

TECHNICAL STUDY / EIR. Upon request by the COUNTY, the CONSULTANT shall make available to the COUNTY any and all field notes, resource documents, and supplemental technical studies used in the preparation of the TECHNICAL STUDY / EIR.

- E. The COUNTY shall be responsible for reviewing the content of the draft TECHNICAL STUDY / EIR and providing clear and consistent comments on the scope and adequacy of the document in a timely manner. The COUNTY shall strive to provide thorough reviews and comments on initial reviews to avoid raising new issues that should have been known as the project progresses. The COUNTY shall always inform the APPLICANT of comments requiring additional information or substantive changes to the TECHNICAL STUDY / EIR.
- F. At the request of the APPLICANT or CONSULTANT and after completion of the PROJECT, the COUNTY shall provide an evaluation of the CONSULTANT's performance on the project.

## VII. EXPIRATION

This MOU shall expire upon any of the following:

- A. The PROJECT and the TECHNICAL STUDY / EIR becomes final by decision of the authorized County decision-maker, all appeal timelines have expired, and all legal challenges associated with the PROJECT and the TECHNICAL STUDY / EIR have been finally adjudicated; or
- B. The PROJECT is withdrawn or denied and all appeal timelines have expired; or
- C. Written notice from the COUNTY, APPLICANT, or CONSULTANT to the other parties to this agreement terminating the MOU.

Notwithstanding expiration of the MOU, all information obtained prior to said expiration shall be disclosed to the COUNTY pursuant to the MOU disclosure requirements. Expiration of the MOU does not relieve the parties of their responsibilities under the MOU for activities that took place prior to the expiration date.

TM 5535

TRAFFIC

IN WITNESS WHEREOF, the COUNTY, the APPLICANT and the CONSULTANT/FIRM have caused this agreement to be executed. Further, the APPLICANT and CONSULTANT, under penalty of perjury, agree that all documents submitted to the COUNTY are in conformance with all requirements set forth in this MOU.

ATTESTED:

COUNTY OF SAN DIEGO

APPLICANT

Director of Planning

Dated: \_\_\_\_\_

STEVE POWELL

Principal

LB VILLAGE INVESTMENTS - LLC

Company Name

Dated: 7/20/09

CONSULTANT

J. Arnold Torma  
Consultant J. ARNOLD TORMA

Dated: 7/20/09

FIRM

KOA CORPORATION

Firm Name

J. ARNOLD TORMA  
Principal of Firm

Dated: 7/20/09

SUB-CONSULTANT

FEDERHART & ASSOC.  
Sub-Consultant Firm Name

Principal of Firm

Dated: 7/20/09

Version: 06/01/06



### **PROJECT ISSUES CHECKLIST**

<b>DPW Issues (Department of Public Works)</b>				Last Updated: June 22, 2009			
Item No.	Subject Area	Issue, Revision or Information Required	Issue Resolution Summary (Include Conditions)	Date Identified	Date Resolved		
3.05	Traffic Analysis	The Traffic Study should update the discussion of the County's TIF Program. The Board of Supervisors approved the updated TIF Program on January 30, 2008. The Traffic Study should reference the most up-to-date TIF Ordinance dated January 2008, which includes SR-67/SR-78 intersection and is based on square footage (not trips). With the latest revision to the TIF (January 2008) certain State Highway interchanges and intersections were added and are now covered by TIF payment.		2/18/2009	6/22/09		
3.06	Traffic Analysis	The Traffic Study should remove the section "Project Cumulative Traffic Impact" and update with current cumulative impact/TIF information.		2/18/2009	6/22/09		
3.07	Traffic Analysis	The Traffic Study indicates a design exception (Pg. 29) will be needed for the project's central driveway (non-circulation element roads intersection require 200-feet of spacing). A Registered Civil Engineer should certify the adequacy of the corner sight distance at the project's driveways and verify the sight distance conforms to County standards.		2/18/2009	6/22/09		
3.08	Traffic Analysis	The Traffic Study should remove text from "Project Cumulative Traffic Impact" (Pg 17) from below the first paragraph until page 24. The updated TIF information (as specified in the County's last comment letter) is the only cumulative discussion required for a project of this size.	<i>Remove text from "Project Cumulative Traffic Impact" (Pg 17) from below the first paragraph until page 24. The updated TIF information (as specified in the County's last comment letter) is the only cumulative discussion required for a project of this size.</i>	2/18/2009	6/22/09		
3.09	Traffic Analysis	The Traffic Study should remove improvement contribution descriptions as cumulative mitigation for proposed improvements by the Montecito Ranch and Cummings Ranch projects. The TIF contribution will mitigate the project's cumulative impact.	<i>Remove improvement contribution descriptions as cumulative mitigation for proposed improvements by the Montecito Ranch and Cummings Ranch projects. The TIF contribution will mitigate the project's cumulative impact.</i>	2/18/2009	6/22/09		
3.10	Traffic Analysis	The Traffic Study should remove the proposed contribution to the County's CIP project at SR-67/ 14th Street. The project's TIF contribution mitigates for all cumulative impacts within the Ramona community and East TIF region.	<i>Remove proposed contribution to the County's CIP project at SR-67/ 14th Street. The project's TIF contribution mitigates for all cumulative impacts within the Ramona community and East TIF region.</i>	2/18/2009	6/22/09		

**PROJECT ISSUES CHECKLIST**

DPW Issues (Department of Public Works)			Last Updated: June 22, 2009
Item No.	Subject Area	Issue, Revision or Information Required	Issue Resolution Summary (Include Conditions)
3.0111	Traffic Analysis	The next Traffic Impact Analysis submittal will be forwarded to the Department of Transportation per their request.	<i>Does County of San Diego's Submittal to Caltrans?</i> 6/22/2009
3.0112	Mod/Exception	The Department of Public Works (DPW) is not opposed to the proposed intersection separation of 133.9 feet from the proposed access road intersections with Robertson Street and La Brea Street to Pala Street.	Modification request supported, see DPW letter dated March 3, 2009. 2/18/2009 3/3/2009
3.0113	Mod/Exception	DPW is not opposed to the request for a thirty-foot (30') half width on La Brea Street, Pala Street and Robertson Street.	See DPW draft conditions for Street improvements and access. 2/18/2009 3/16/2009
3.0114	Mod/Exception	The radius of curvature at the intersections should be specified.	Provided. See Ramona Fire Prevention Bureau letter dated January 29, 2009. 2/18/2009 6/22/2009
3.0115	FPP Conditions		Prior to commencement of construction for any structure and prior to obtaining a building permit for any structure within the subdivision, the applicant shall pay into the County of San Diego Transportation Impact Fee (TIF) program (effective June 19, 2005), to the satisfaction of the Department of Public Works. This fee payment shall be done for each and every individual structure of the subdivision. 1/29/2009 -- 10/5/2007 --
3.0116	TIF		
3.0117	Site Plan	Based upon final approval of the site plan and tentative map application, the applicant may proceed with landscape construction documents per the County of San Diego's Landscape Water Conservation Design Manual and Section 6712 et seq. of the County's Zoning Ordinance. Landscape plans shall be in substantial conformance with the approved conceptual landscape plan and shall further address the following:	3/6/2009 --

## **Executive Summary**

The Village Walk Townhomes Issue Specific Traffic Impact Study is for a 14 residential unit project located one block west of SR 67, along Pala Street in downtown Ramona.

It will generate 112 ADT and a total of 9 AM and 12 peak hour vehicle trips on the Ramona roadways.

Based on an evaluation of the projects traffic impact on existing traffic, this Village Walk Townhomes project will have no direct traffic impacts on any streets or highways in the Ramona area.

When the projects traffic is assigned, it was found that it will have cumulative traffic impacts on roadways in the area, when added to all the other proposed, cumulative, near term projects in the Ramona area.

Its cumulative traffic impacts will be mitigated by its 14 units contributing to the County TIF program for those improvements covered in the TIF program. The projects TIF contribution mitigates for all cumulative impacts within the Ramona community and East TIF region.

At the project itself, the Village Walk Townhomes project will improve its frontages along Pala Street, La Brea Street, and Robertson Street to County standards.

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## TRAFFIC AND PARKING STUDIES

JF704  
July 20, 2009

### A Traffic Study For The Village Walk Townhomes Project In Ramona

#### Introduction

In April 2007, this consultant was retained by the developer to conduct a limited Traffic Impact Study for a small condominium project located near downtown Ramona. That study is now complete and this report will document its findings.

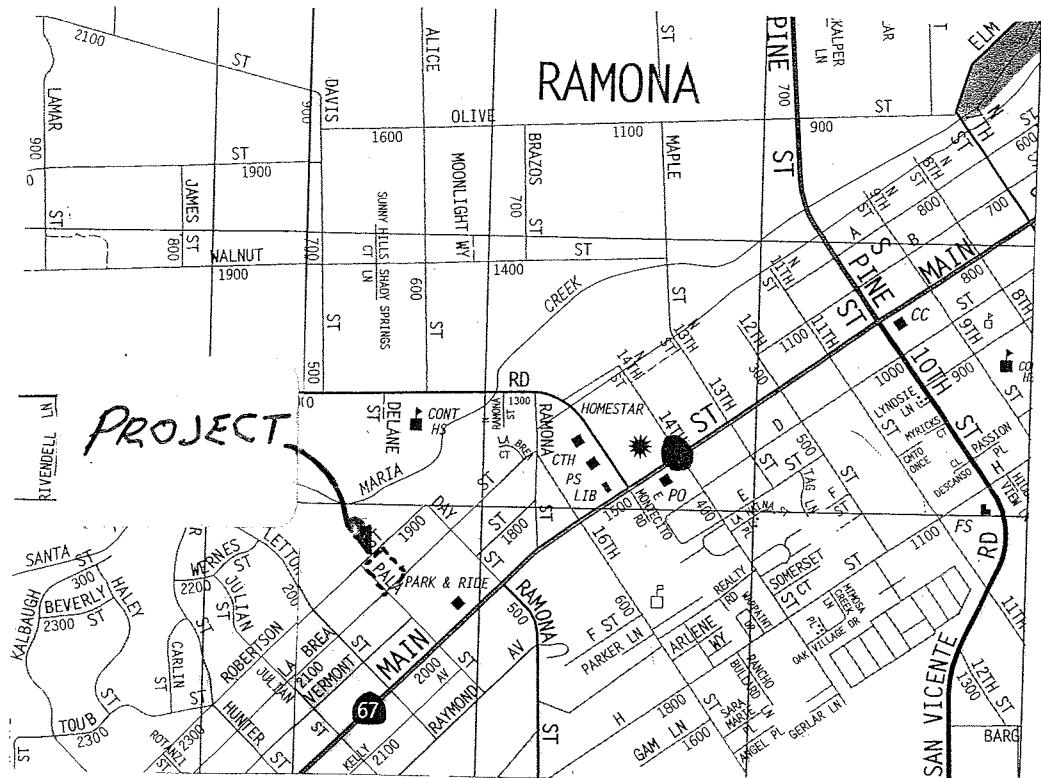
#### The Project

The Village Walk Townhomes project is located within walking distance of many everyday activities in Ramona. Figure 1 shows that it is located at the northwest quadrant of Pala Street and La Brea Street immediately behind K-mart. Therefore, it is very close to a major bus stop in Ramona, a Park and Ride Facility, shopping, and a new, planned, Longs drug store. The Library, Sheriffs station, Post Office, and a large commercial center are all within 5 blocks walking distance from the planned project.

The project will consist of 14 condominium units which will generate 112 daily trips. Figure 2 shows the site plan of the project. Note that it fronts on La Brea, Pala, and Robertson streets but has access only to/from La Brea and Robertson. All three streets will be improved on the project sides to one half of a 40/60 Residential Collector Road with meandering, landscaped, sidewalks on all street frontages. Additionally, both Robertson and La Brea will be improved with 8 feet of pavement on the opposite side of the centerline making a total width of 28 feet of pavement, and both public road intersections will have a 40 foot radius of the right of way on the project side. The interior access street will be a 24 foot wide asphalt, private driveway. All surrounding streets are very low volume streets, intending always to be only local land service roadways.

#### The Traffic Study

The TIS will generate, distribute, and assign the project generated traffic to the roadway system in order to quantify its direct impacts (if any). Since it is known that it will impact SR 67 which is at LOS E or F at the present time, it is then known that it will have a cumulative traffic impact on this roadway and therefore the study will determine the number of cumulative project trips on SR 67 to be mitigated.



# VILLAGE WALK TOWNHOMES

# PROJECT LOCATION IN RAMONA

# FIGURE 1

COUNTY OF SAN DIEGO TRACT

**CONDOMINIUM  
TENTATIVE MAP**

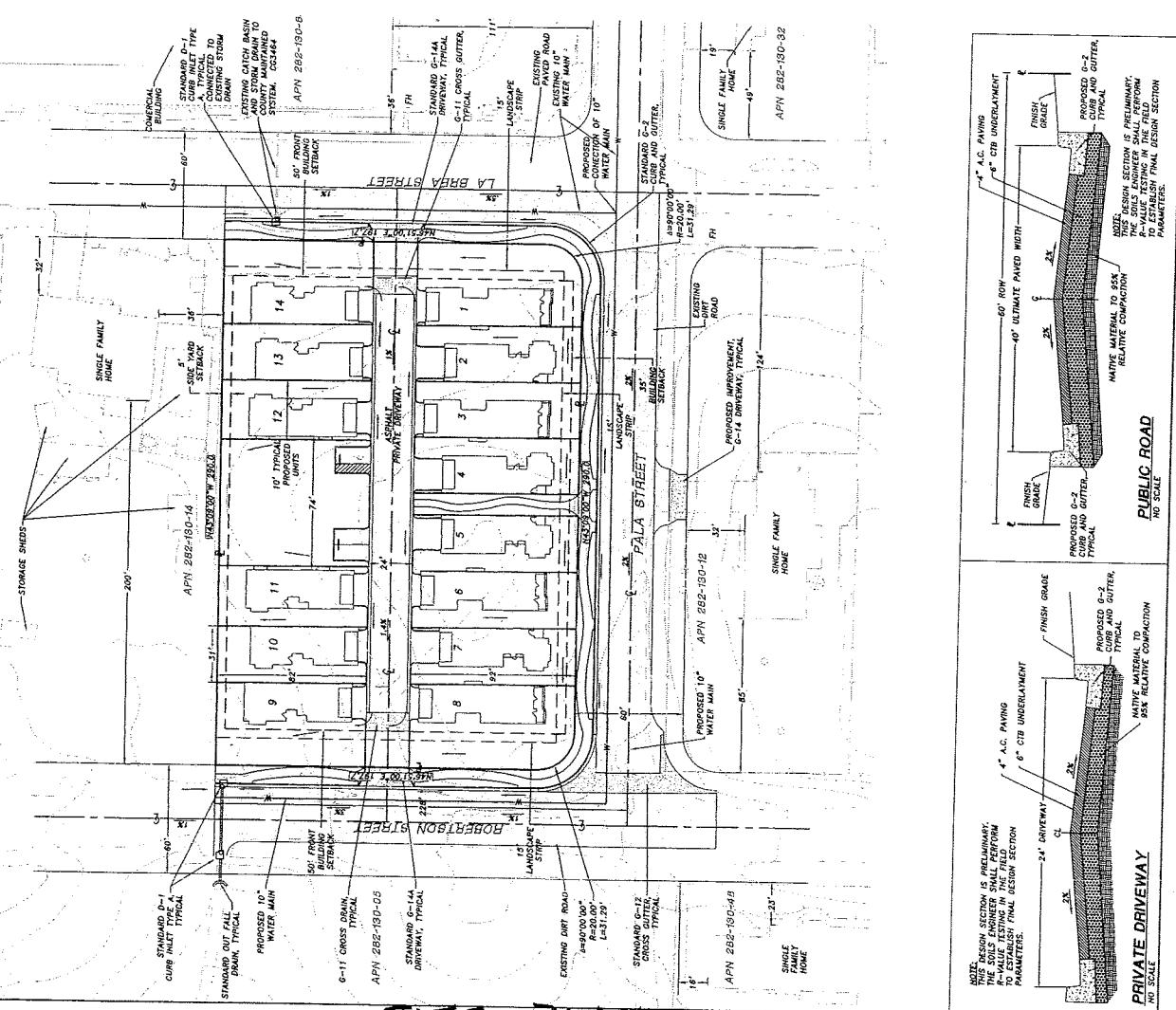


FIGURE 2

Figure 3 shows the County Circulation Element of the General Plan and shows that SR 67/Main Street is the natural, major, distribution traffic street for project traffic, and therefore the projects impact on SR 67, and its nearby intersections, are critical to the project and the Ramona community.

### Existing Traffic And Analysis

Figure 4 shows the existing ADT's on nearby roadways. These ADT's can be compared to the County ADT/LOS standards to determine the existing LOS of the roadways.

Figure 5A shows the County standards, while Table 1 shows the existing segment volumes and LOS's based on their existing cross section and Figure 5A where applicable.

Additionally Figure 5B is an insert taken from the County of San Diego, "Guidelines for Determining Significance" as adopted on December 5, 2007, and modified recently, with respect to Two Lane State Highways. Note that on SR 67, the capacity is raised from the 16200 ADT in Table 1 for the County Light Collectors, to the 22900 ADT for the State two lane roadways with LOS F as in the latest Guidelines.

Table 1  
Existing Segment Classification, Volume, and LOS's

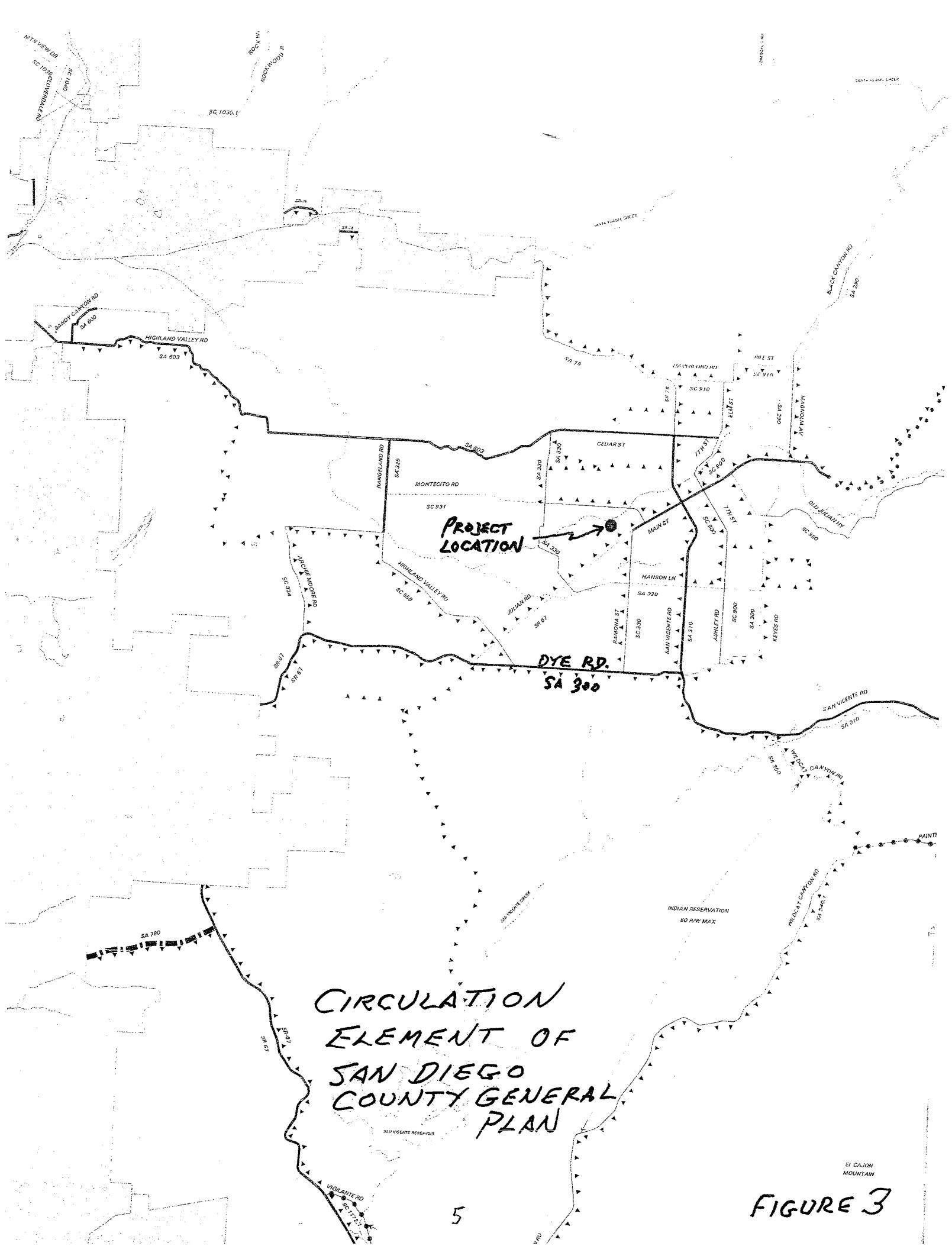
<u>Segment</u>	<u>Classification</u>	LOS E Capacity	<u>Existing ADT</u>	<u>Existing LOS</u>
SR 67 North of Montecito	Major Rd	37000	23448**	B
SR 67 South of Pala	Two Lane State Highway	22900*	23448**	F
SR 67 South of Dye Rd	Two Lane State Highway	22900*	25005**	F
Dye Rd.	Light Collector	16200	6000	C
Montecito Rd.	Light Collector	16200	6000	C

\*LOS F (See Fig.5 B) \*\*(See Appendix A9 & A10)

As shown in Table 1, only the southern segments of SR 67/Main St. have critically bad LOS's since they are two lane roadways while to the north, SR 67 is a Major Road in the central area of Ramona.

Figure 6 shows the existing peak hour traffic at the two intersections critical to the Village Walk Townhomes project. Notice one was counted in April 2007 while the other was counted in 2/16/06 (See Appendix A1-A4). Figure 7 shows the existing intersection lanes. Table 2 below shows the existing intersection delays and LOS's using the existing Lanes and Volumes. The HCM, Traffix Computer calculations are shown in the Appendix (A5 & A6).

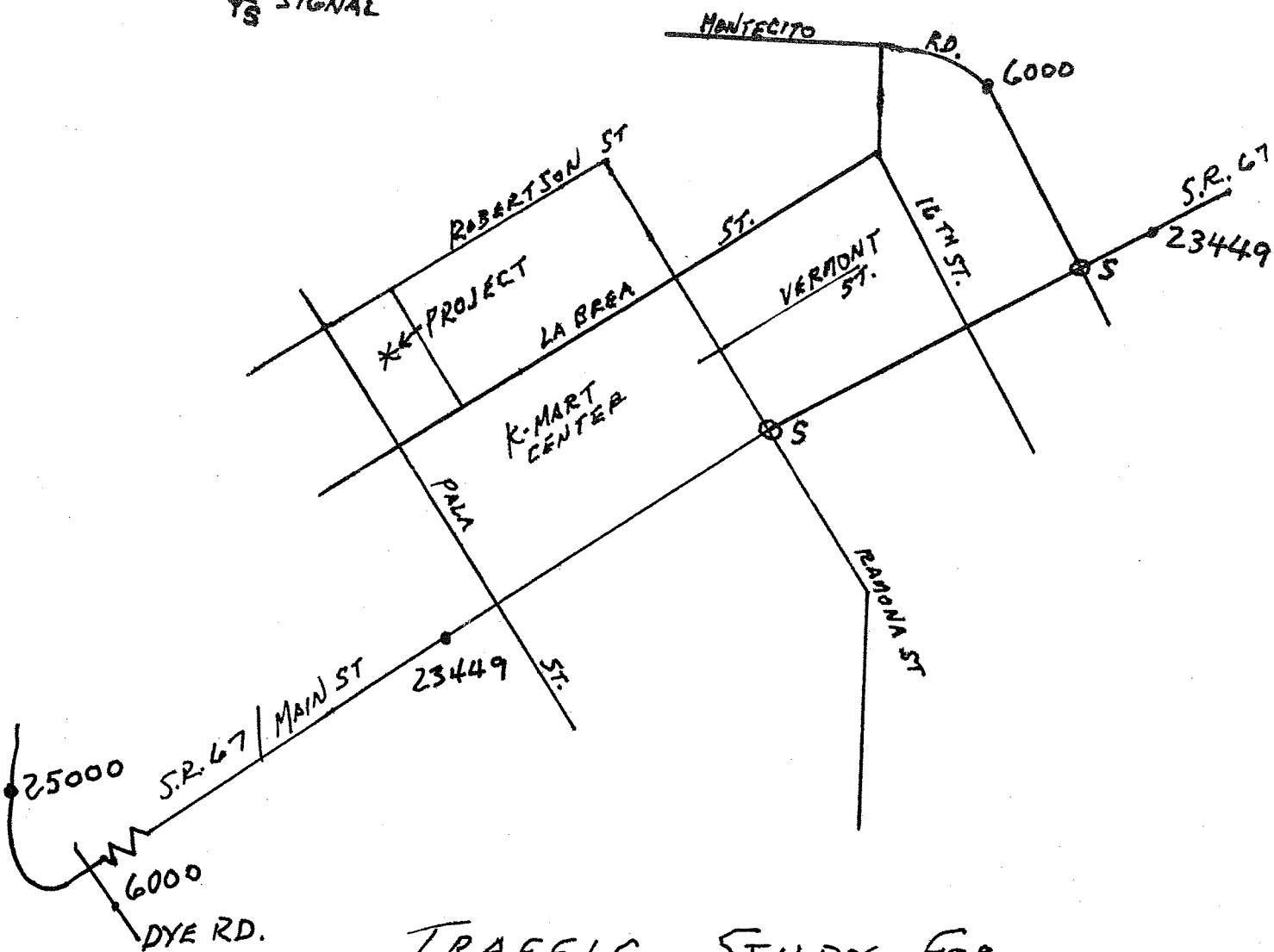
Since the ADT volumes in this section of SR 67, as counted by Caltrans, are considerably less than in 2007 (23448 vs. 28398)(See Appendix A9) and (25005 vs. 25495)(See Appendix A10), no attempt has been made in Figure 6 to adjust the peak hour volumes downward by the 2007 to 2008 decrease. We will leave the volumes of Figure 6 and thus the respective delays and LOS's as calculated to derive Table 2, with the knowledge that



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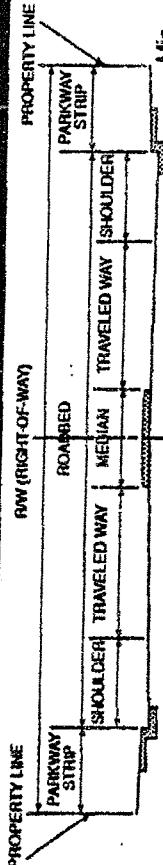
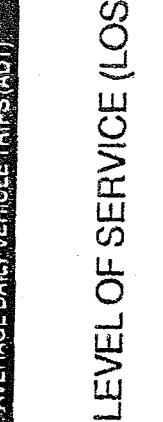


### TRAFFIC STUDY FOR VILLAGE WALK TOWNHOMES

EXISTING DAILY TRAFFIC

FROM CALTRANS A9 & A10

# SUMMARY OF COUNTY OF SAN DIEGO PUBLIC ROAD STANDARDS\*

CLASS	CIRCULATION ELEMENT ROAD CROSS-SECTIONS	AVERAGE DAILY VEHICLE TRIPS (ADT)													
		Median Travelled way	Shoulder	Parkway strip	Roadbed	RW*	Min. curve radius	Max. grades	Max. travelled way shoulder	LEVEL OF SERVICE (LOS)					
															
EXPRESSWAY	Divided highway with only selected public road access with full grade separations	34'	36'	10'	10'	126'	146'	1200'	6%	55	<36,000	<54,000	<70,000	<86,000	<108,000
PRIME ARTERIAL	Divided highway, signalized intersections, access control, or extra lanes as required	14'	36'	8'	10'	102'	122'	1200'	6%	55	<22,200	<37,000	<44,600	<50,000	<57,000
MAJOR ROAD	4-lane divided road, access & parking controlled as necessary	14'	24'	8'	10'	78'	98'	1200'	7%	55	<14,800	<24,700	<29,600	<33,400	<37,000
COLLECTOR	4-lane undivided road	—	24'	8'	10'	64'	84'	700'	7%	45	<13,700	<22,800	<27,400	<30,800	<34,200
LIGHT COLLECTOR	2-lane undivided road	—	12'	8'	10'	40'	60'	700'	9%	45	<1,900	<4,100	<7,100	<10,900	<16,200
RURAL COLLECTOR	2-lane undivided road, extra RW allows greater flexibility & upgrade	—	12'	8'	22'	40'	84'	500'	12%	40	<1,900	<4,100	<7,100	<10,900	<16,200
RURAL LIGHT COLLECTOR	2-lane undivided road, decreased "curve radii" standards	—	12'	8'	10'	40'	60'	500'	12%	40	<1,900	<4,100	<7,100	<10,900	<16,200
RURAL MOUNTAIN	2-lane undivided road appropriate only in rural mountain areas	—	12'	8'	30'	40'	100'	500'	12%	40	<1,900	<4,100	<7,100	<10,900	<16,200
RECREATIONAL PARKWAY	Recreational routes for travel pleasure purposes	—	12'	8'	30'	40'	100'	400'	12%	25	<1,900	<4,100	<7,100	<10,900	<16,200
															
<b>NON-CIRCULATION ROADS</b>															
RESIDENTIAL COLLECTOR	—	12'	8'	10'	40'	60'	300'	12%	30	<4,500	Lanes of service are not applied to non-circulation roads since their primary purpose is to serve existing lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors. Not all non-circulation road classifications are shown.				
RESIDENTIAL STREET	—	12'	6'	10'	36'	56'	200'	15%	30	<1,500					
RESIDENTIAL LOOP/CUL-DE-SAC	—	12'	4'	10'	32'	52'	200'	15%	30	<200					

\*Additional paved shoulder and RW may be required for C.E. Collectors and U.L. Collectors in Industrial/Commercial Zones, 4 and 12 ft., respectively. C.E. roads needing additional turn lanes will require an additional 12 to 14 ft. of pavement and RW for each lane. C.E. roads designated with Bike Lanes will require an additional 10 ft. of pavement and RW.

For full standards, refer to Public Road Standards, adopted by the Board of Supervisors on 2/26/92.

FIG. 5 A

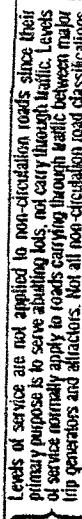


FIGURE 5

For segments operating at LOS E or LOS F, the September 26, 2006 Guidelines state that an impact from new development would be reached when: (1) the increase in average daily trips (ADT) on a two-lane road exceeds 200 ADT on an LOS E roadway; or (2) the increase in average daily trips (ADT) on a two-lane road exceeds 100 ADT on an LOS F roadway. The September 26, 2006 Guidelines elaborate by stating that for most discretionary projects 200 ADT would generate less than 25 peak hour trips, which on average would be only one additional car every 2.4 minutes. Therefore, the addition of 200 ADT, in most cases, would result in changes to traffic flow that would not be noticeable to the average driver and therefore would not constitute a significant impact on the roadway.

The acceptable level of service for roadway segments and intersections in San Diego County is level of service D. Where the roadway segment or intersection is forecast to operate at LOS E or F, the allowable increases are shown below in Table 1. In addition, two-lane State Route segment criteria have been developed for Caltrans facilities given that these roadways can handle larger traffic volumes than two-lane County Collector roadways. Since two-lane Collector roadways were previously the highest capacity two-lane facilities under the County of San Diego Roadway Capacity Standards, the standards have been revised to account for the additional available capacity. The capacity thresholds and allowable increases due to project traffic for two-lane State Routes are also shown in Table 1 below.

**Table 1**  
**Measures of Significant Project Impacts to Congestion**

**Allowable Increases on Congested Roads**

Roadway Segment LOS	2-Lane Road	4-Lane Road	6-Lane Road
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

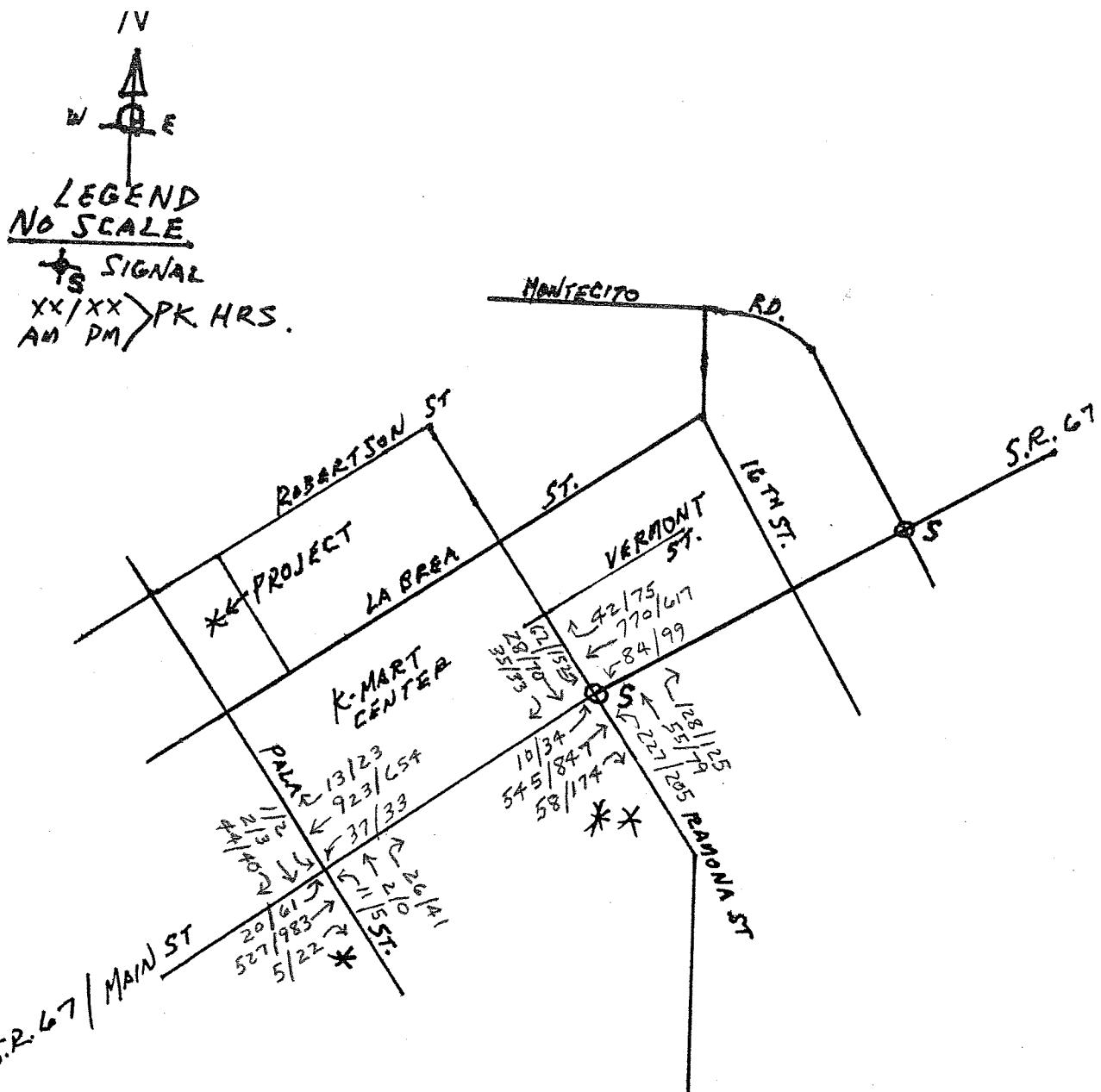
**Intersections**

Intersection LOS	Signalized	Unsignalized
LOS E	Delay of 2 seconds	20 peak hour trips on a critical movement*
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement	5 peak hour trips on a critical movement*

\* A critical movement is one that is experiencing excessive delay (LOS E or F) and/or queues greater than the available turn pocket length.

**State Routes**  
**Two-Lane Highways**  
**With Signalized Intersection Spacing Over One Mile**

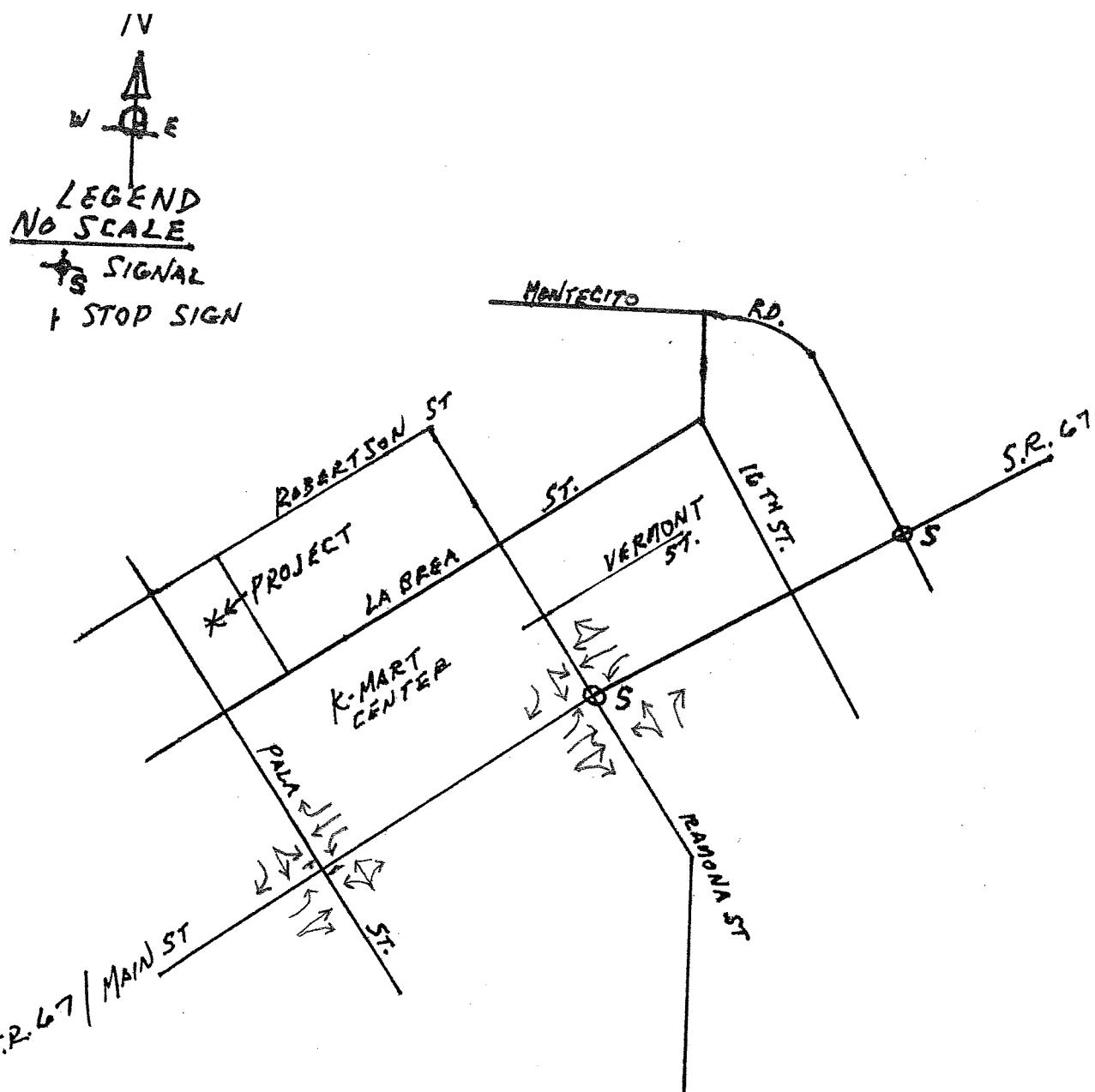
Roadway Segment LOS	Capacity	Impact Threshold
LOS E	16,200 ADT	325 ADT
LOS F	22,900 ADT	225 ADT



## TRAFFIC STUDY FOR VILLAGE WALK TOWNHOMES

### EXISTING PEAK HOUR TRAFFIC

\* COUNTED 4/12/07  
\*\* COUNTED 2/16/06



## TRAFFIC STUDY FOR VILLAGE WALK TOWNHOMES

### EXISTING INTERSECTION LANES

Table 2 impacts are too high and thus are very conservative at reflecting existing delays and LOS's. All the existing ADT's shown in this report and used in the ADT analyses, will use these most current counts (Figure 4 etc.)

Table 2  
Existing Intersection Delays And LOS's

<u>Intersection</u>	<u>Delay</u>		<u>LOS's</u>
Rte 67 at Day/Ramona	AM	20.5	C
	PM	40.5	D
Rte 67 at Pala	AM	39.1	E*
	PM	38.0	E*

\*Worst Case on Pala only - 0 on Rte 67

As shown in Table 2, the signalized intersection of SR 67 - Day is at acceptable LOS's in both peak hours with more traffic than the unsignalized SR 67/ Pala intersection - yet the Pala intersection is at LOS E for the side street traffic because it only has a stop sign. In Table 2, as discussed previously all delays are too high to reflect actual 2008 traffic.

#### Project Traffic Generation

In order to quantify a projects traffic impact it is first necessary to estimate its traffic generation. In this case, standard, SANDAG, traffic generation rates were used to estimate the projects future generated traffic. Table 3 below shows the projects estimated traffic generation.

Table 3  
Estimated Village Walk Townhomes Traffic Generation

<u>Project</u>	<u>Units</u>	<u>Rate</u>	<u>ADT</u>	<u>Peak Hours *</u>			
				<u>AM</u>	<u>PM</u>	<u>In</u>	<u>Out</u>
Condominiums	14	8	112	2	7	8	4

\*AM 8% of ADT split 2:8. PM at 10% of ADT split 7:3

The projects 14 units as seen in Table 3 can be contrasted with what the existing zoning will allow - 31 units, or, the project is only at 45%. In the 2020 General Plan designation the project site would allow 19 units - the project is at 74% of that.

As shown in Table 3, the project will generate very low volumes when compared to the existing volumes of Figures 4 and 6.

### Project Traffic Distribution

To quantify a project's traffic impacts, in addition to estimating its traffic generation, it is necessary to estimate its traffic directional distribution. In this case, a single traffic zone was obtained from SANDAG from which the data was obtained that was used to estimate the project's traffic distribution. Figure 8 then shows the project's estimated traffic distribution on the Ramona area's critical roadways.

### Project Traffic Assignment

Using the project traffic of Table 3, and the project traffic distribution just discussed and shown on Figure 8, a project traffic assignment was made on the roadways of Figure 9 in the various directions for both the daily traffic ADT's and the AM and PM peak hours. The peak hours assigned on Figure 9 are higher than shown in Table 3 because of rounding very low numbers and not assigning any traffic to or from Kmart in the peak hours, thus making the assignment to/from SR 67 conservatively higher.

### Project Traffic Analysis and Traffic Impact

By combining the existing traffic of Figures 4 and 6 with the project traffic of Figure 9, the after project traffic of Figure 10 was derived for both the ADT's and the peak hours. These volumes can be used in both segment and intersection, before and after, project comparisons.

Table 4 below compares the before and after project segment volumes and LOS's.

Table 4  
Comparison Of Segment Volumes And LOS's Before And After Project

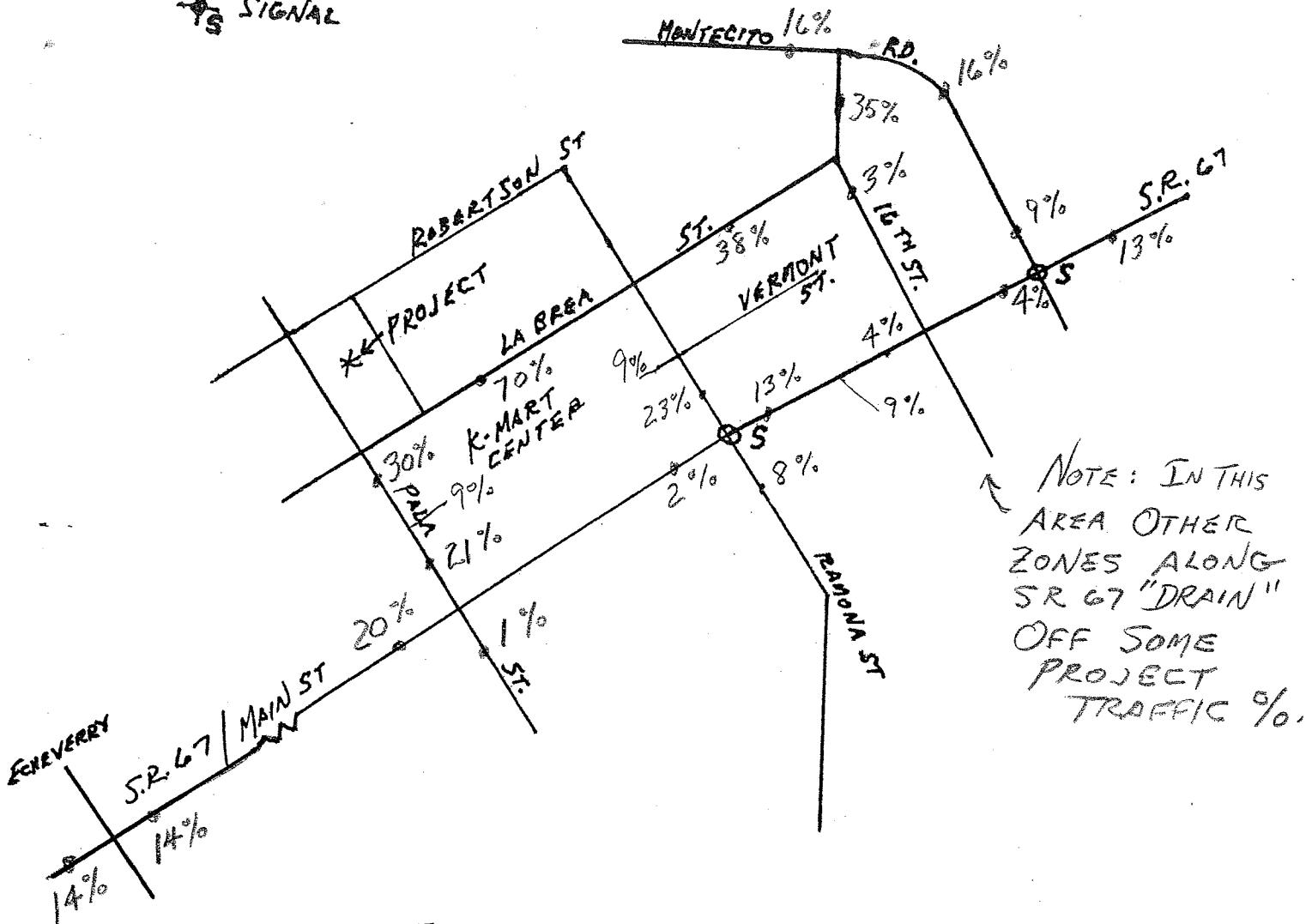
<u>Segment</u>	<u>Capacity</u>	<u>Existing Volume</u>	<u>Existing LOS</u>	<u>Existing + Project Volume</u>	<u>Existing + Project LOS</u>	<u>Change in LOS Due to Project</u>	<u>Signif?</u>
SR 67 North of Montecito	37000	23448	B	23454	B	None	No
SR 67 South of Pala	22900	23448	F	23472	F	None	No
SR 67 South of Dye Rd	22900	25005	F	25012	F	None	No
Dye Rd.	16200	6000	C	6002	C	None	No
Montecito Rd.	16200	6000	C	6019	C	None	No

It is not surprising that Table 4 shows that the project has no significant impact when it is realized that at LOS F the County Guidelines as adopted December 5, 2007, allow 100 ADT from a project on a segment, and, in this case the project adds a maximum of 23 ADT. Figure 11, from the County Guidelines, identifies the segment and intersection factors to be used to determine a project's traffic impact significance.

The combined intersection, after project, volumes of Figure 10 can be used in the same computerized HCM, Traffix formulas used to derive the existing delays and LOS's shown

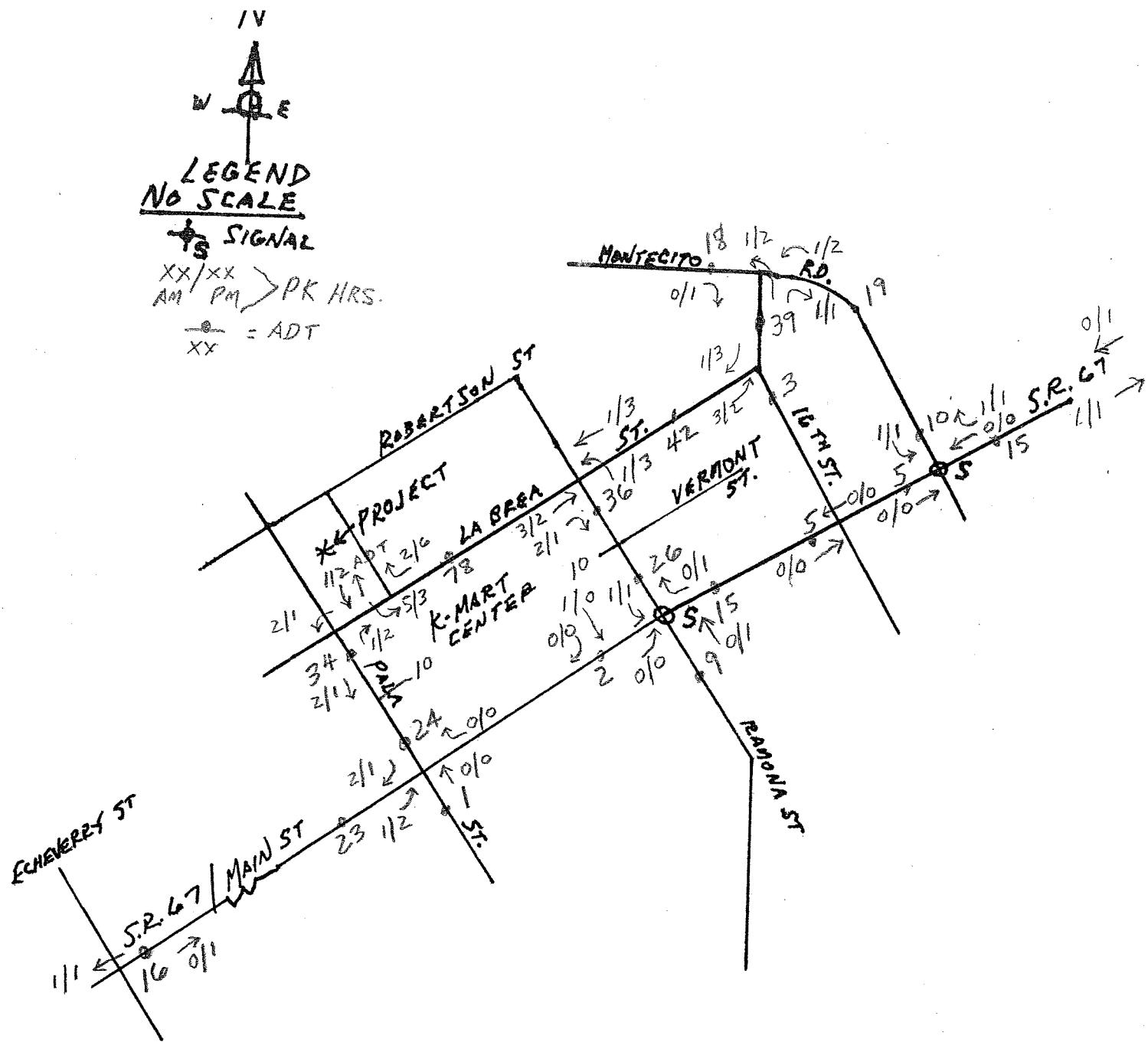
N  
E

LEGEND  
NO SCALE  
S SIGNALS



## TRAFFIC STUDY FOR VILLAGE WALK TOWNHOMES

## PROJECT TRAFFIC DISTRIBUTION



# TRAFFIC STUDY FOR VILLAGE WALK TOWNHOMES

# PROJECT ADT & PEAK HOUR TRAFFIC



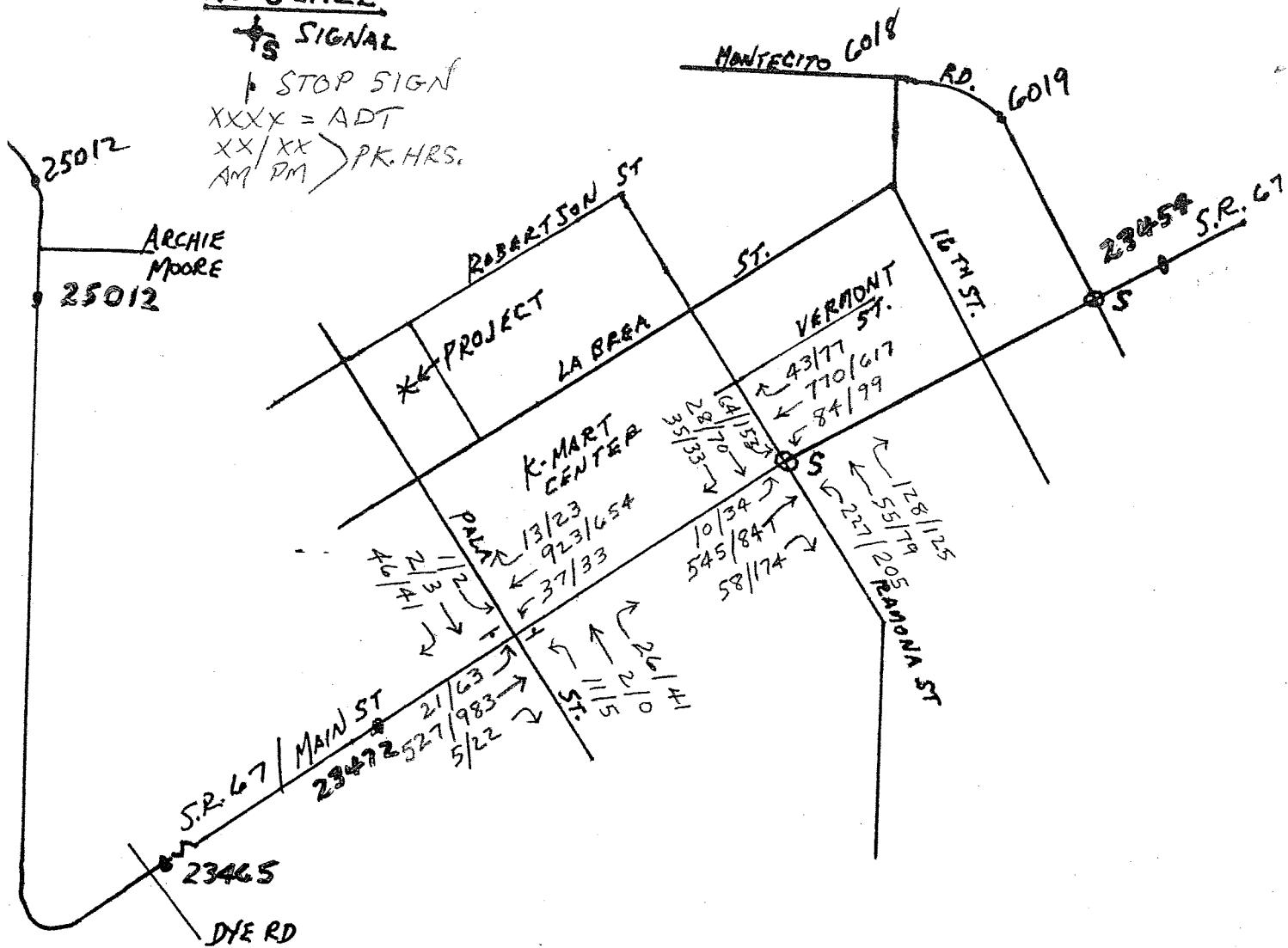
LEGEND  
NO SCALE

SIGNAL

+ STOP SIGN

XXXX = ADT

XX/XX > PK. HRS.  
AM PM



TRAFFIC STUDY FOR  
VILLAGE WALK TOWNHOMES

EXISTING + PROJECT  
TRAFFIC  
ADT AND PEAK HOUR

- \* The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road, State Highway or Intersection currently operating at LOS E or LOS F as identified in Table 1.

Table 1

**Measures of Significant Project Impacts to Congestion  
Allowable Increases on Congested Roads and Intersections**

**Road Segments**

	2-LANE ROAD	4-LANE ROAD	6-LANE ROAD
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

**Intersections**

	SIGNALIZED	UNSIGNALIZED
LOS E	Delay of 2 seconds	20 peak hour trips on a critical movement
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement	5 peak hour trips on a critical movement

Note: A critical movement is one that is experiencing excessive queues.

Note: By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.

Note: The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

The County of San Diego Public Road Standards include a table which establishes levels of service for County Circulation Element roads based upon average daily trips. This table shall be used in determining the level of service for County Circulation Element roads. The Highway Capacity Manual (HCM) includes analysis criteria for the assessment of the level of service for two-lane highways. The Director of Public Works may, based upon a review of the operational characteristics of the roadway, designate that a HCM analysis be used to determine the level of service for a two-lane County arterial in lieu of the level of service table provided in the County of San Diego Public Road Standards.

In determining the level of service for road segments and intersections outside of the County of San Diego's jurisdiction, the level of service standards for the jurisdiction or agency (Caltrans) shall be used. Early coordination with the affected jurisdiction and/or agency (Caltrans) should be conducted during the preparation of the traffic impact study.

FIGURE II

in Table 2. The calculations are shown in the Appendix (A7 & A8) but Table 5 shows the intersection delays and LOS's before and after the project.

Table 5  
Intersection Comparison Of Delays And LOS's Before And After Project

Intersection	Existing Traffic		Existing+Project		Project Changes		Signif?
	Delay	LOS's	Delay	LOS	Delay	LOS	
<b>Rte 67 at Day/Ramona</b>							
AM	20.5	C	20.6	C	+0.1	None	No
PM	40.5	D	40.6	D	+0.1	None	No
<b>Rte 67 at Pala</b>							
AM	39.1	E*	39.6	E*	+0.5	None	No
PM	38.0	E*	38.3	E*	+0.3	None	No

\*Worst case Pala only - 0 on Rte 67

Note in Table 5 that the project has no intersection direct traffic impacts since by County Guidelines 2.0 seconds of delay are allowed for LOS E intersections, or, 20 peak hour trips on a critical movement. This project has a maximum of 2 trips (See Appendix A7 & A8). Also, it should be remembered that the actual intersection volumes are less now, and therefore the delays shown in Table 5 are actually less than shown.

#### Project Cumulative Traffic Impact

The County of San Diego has adopted a Transportation Impact Fee program as a way for a small project to mitigate its cumulative traffic impact. In the Ramona area, since SR 67 is at LOS F along some segments, any project that adds any traffic to SR 67 has a cumulative traffic impact and must mitigate this impact. The Village Walk Townhomes project will add traffic to SR 67 (see Figure 9) and therefore must mitigate its cumulative impact. The only meaningful way for a small project to mitigate its cumulative impact is to contribute to the TIF program for those projects in the TIF program. This project will contribute to the TIF program based on its 14 net housing units. Fortunately, the latest TIF program of December, 2008, has added the intersections of SR 67/SR78, SR 67/Montecito Road, and SR 67/Archie Moore to the program and also SR 67 itself. Thus, in short, all the projects cumulative impacts to SR 67 and its intersections is mitigated with the payment of its TIF fee which mitigates for all cumulative impacts within the Ramona community and the east TIF region.

#### Project Cumulative Traffic Impact Summary

Table 6 and Figure 9 clearly show that according to the County Guidelines of December 5, 2007, The Village Walk Townhomes project will have no direct traffic impacts (See Guidelines Figure 11).

The project will have minor cumulative impacts along SR 67 south of SR 78 and at four intersections, according to the Guidelines, and therefore it must mitigate these cumulative impacts.

### CMP Analysis

Based on the Guidelines, the Village Walk Townhomes project does not require a CMP analysis since its 112 ADT traffic generation is only 5% of the 2400 ADT, adopted regionally, as the normal divide where a CMP analysis is required.

### Conclusions

The Village Walk Townhomes project is a good project for developing additional, close in, residential housing since it has minimal traffic impacts, is within walking distance to shopping, the court house, the library, the park and ride facility and a bus stop in Ramona.

The Village Walk Townhomes project, with only 112 generated ADT's, has no direct traffic impacts on its two main SR 67 intersections.

Since sections of SR 67 segments and intersections are already at LOS E or F, the project will have cumulative traffic impacts and must mitigate.

The Village Walk Townhomes will mitigate its non SR 67 cumulative impacts by participating in the County TIF program with its 14 units.

The project TIF contribution mitigates for all SR 67 and other cumulative impacts within the Ramona community and east TIF region.

The project TIF contribution mitigates for all SR 67 and other cumulative impacts within the Ramona community and east TIF region.

The Village Walk Townhomes will dedicate and improve its frontages along La Brea Street, Pala Street and Robertson Street, to County of San Diego Public Road standards.

### Recommendations

It is recommended that Village Walk Townhomes improve its street frontages to County of San Diego, Public Road standards of dedication, pavement, and sidewalk construction and stripe centerlines on the surrounding public streets if asked by the County of San Diego.

It is recommended that the County of San Diego, Dept of Public Works approve Village Walk Townhomes application for design exceptions for its central driveway to be closer

to Pala Street than is standard, since the project only generates a maximum of 12 peak hour trips (an average of one every 5 minutes) and the entering streets of La Brea and Robertson, are very low volume roadways and will remain that in the future. (See Appendix A11 for DPW staff approval of this application)

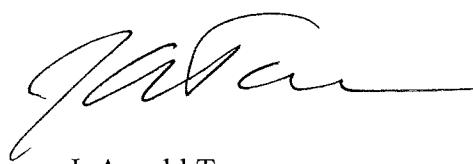
It is recommended that Village Walk Townhomes contribute to the County TIF program based on its 14 housing units in order to mitigate its cumulative traffic impacts on all roads and streets in the Ramona community and east TIF region that are on the TIF network.

In order to prevent through traffic on the projects private driveway, it is recommended that the project install outbound stop signs at the public street intersections and install internal speed ramps (2) on the internal private roadway. With the above, and the improvements on Pala Street, it is thought that outsiders will find Pala Street more attractive to travel than the private, internal driveway.

With the implementation of the above recommendations, the project will have mitigated its traffic impacts and thus the County, and the Ramona community, can be assured that the Village Walk Townhomes project will have done its share towards alleviating existing traffic problems in the Ramona area.



Federhart & Associates



J. Arnold Torma  
Katz, Okitsu & Associates



F

APPENDIX

# Federhart & Associates

Counted By: Emp. #03

Location: SR-67 / Main Street & Pala Street

2845 Nimitz Boulevard, Suite G, San Diego, CA 92106

Start Date: 04/17/2007  
File Name: 704-01-1

Start Time	SR-67 / Main Street Southbound			Pala Street Westbound			SR-67 / Main Street Northbound			Pala Street Eastbound		
	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped
7:00	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0
7:30	10	244	4	0	5	1	4	0	4	117	1	0
7:45	10	198	3	0	0	1	10	1	7	138	2	0
Total	20	442	7	0	5	2	14	1	11	255	3	0
8:00	7	236	1	0	1	0	6	0	4	127	0	0
8:15	10	245	5	0	5	0	6	0	5	145	2	0
8:30	0	0	0	0	0	0	0	0	0	0	19	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0
Total	17	481	6	0	6	0	12	0	9	272	2	0
Grand Total	37	923	13	0	11	2	26	1	20	527	5	0
Approach%	3.8	94.9	1.3	-	27.5	5.0	65.0	2.5	3.6	95.5	0.9	-
Total%	2.3	57.3	0.8	-	0.7	0.1	1.6	0.1	1.2	32.7	0.3	-
											0.1	0.1
											2.7	-

## Peak hour analysis for the period 07:30 to 08:15

Volume	37	923	13	-	11	2	26	1	20	527	5	-
Approach%	3.8	94.9	1.3	-	27.5	5.0	65.0	2.5	3.6	95.5	0.9	-
Total%	2.3	57.3	0.8	-	0.7	0.1	1.6	0.1	1.2	32.7	0.3	-
PHF					0.94					0.91		0.62

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# Federhart & Associates

2845 Nimitz Boulevard, Suite G, San Diego, CA 92106

Counted By: Emp. #03  
Location: SR-67 / Main Street & Pala Street

Start Date: 04/17/2007  
File Name: 704-01-2

Start Time	SR-67 / Main Street Southbound			Pala Street Westbound			SR-67 / Main Street Northbound			Pala Street Eastbound		
	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped
16:00	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:30	6	158	4	0	1	0	11	0	17	225	6	0
16:45	5	175	12	0	0	0	9	0	14	274	5	0
Total	11	333	16	0	1	0	20	0	31	499	11	0
17:00	12	174	3	0	3	0	11	0	15	235	9	0
17:15	10	147	4	0	1	0	10	0	15	249	2	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0
Total	22	321	7	0	4	0	21	0	30	484	11	0
Grand Total	33	654	23	0	5	0	41	0	61	983	22	0
Approach%	4.6	92.1	3.2	-	10.9	-	89.1	-	5.7	92.2	2.1	-
Total%	1.8	35.0	1.2	-	0.3	-	2.2	-	3.3	52.7	1.2	-

## Peak hour analysis for the period 16:30 to 17:15

Volume	33	654	23	-	5	-	41	-	61	983	22	-
Approach%	4.6	92.1	3.2	-	10.9	-	89.1	-	5.7	92.2	2.1	-
Total%	1.8	35.0	1.2	-	0.3	-	2.2	-	3.3	52.7	1.2	-
PHF					0.92		0.82		0.91		0.91	

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A-2

# Federhart & Associates

2845 Nimitz Boulevard, Suite G, San Diego, CA 92106

Counted By: Emp. #01

Location: SR-67/Main Street & Day Street & Ramona Street

Start Date: 02/16/2006  
File Name: 548-01-1

Start Time	SR-67/Main Street Southbound			Ramona Street Westbound			SR-67/Main Street Northbound			Day Street Eastbound		
	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped
7:15	18	143	8	1	86	9	27	0	2	70	17	0
7:30	21	182	8	2	74	11	39	0	3	141	13	0
7:45	17	177	16	2	43	17	25	0	1	143	11	0
8:00	17	204	12	4	57	13	25	0	3	103	19	0
Total	73	706	44	9	260	50	116	0	9	457	60	0
8:15	29	207	6	5	53	14	39	0	3	158	15	0
8:30	9	164	11	1	53	14	32	1	5	145	12	0
8:45	4	200	13	1	30	11	20	0	7	156	15	0
9:00	16	187	16	1	32	9	26	0	2	128	18	1
Total	58	758	46	8	168	48	117	1	17	587	60	1
Grand Total	131	1464	90	17	428	98	233	1	26	1044	120	1
Approach%	7.7	86.0	5.3	1.0	56.3	12.9	30.7	0.1	2.2	87.7	10.1	0.1
Total%	3.4	37.5	2.3	0.4	11.0	2.5	6.0	0.0	0.7	26.7	3.1	0.0

## Peak hour analysis for the period 07:30 to 08:15

Volume	84	770	42	13	227	55	128	-	10	545	58	-
Approach%	9.2	84.7	4.6	1.4	55.4	13.4	31.2	-	1.6	88.9	9.5	-
Total%	4.1	37.4	2.0	0.6	11.0	2.7	6.2	-	0.5	26.4	2.8	-
PHF					0.92				0.83		0.87	0.79

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# Federhart & Associates

2845 Nimitz Boulevard, Suite G, San Diego, CA 92106

Counted By: Emp. #01

Location: SR-67/Main Street & Day Street & Ramona Street

Start Date: 02/16/2006  
File Name: 548-01-2

Start Time	SR-67/Main Street Southbound			Ramona Street Westbound			SR-67/Main Street Northbound			Day Street Eastbound		
	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped
16:00	18	145	23	3	46	22	20	0	8	193	32	2
16:15	12	180	25	1	40	17	32	0	7	209	51	0
16:30	21	135	19	3	60	12	39	1	7	211	51	0
16:45	20	143	19	7	56	17	28	1	8	232	40	1
Total	71	603	86	14	202	68	119	2	30	845	174	3
	31	183	16	3	51	19	30	0	16	188	29	2
	27	156	21	0	38	31	28	1	3	216	54	0
	13	150	16	12	36	25	32	0	1	191	48	0
	27	145	18	11	34	14	27	0	8	200	29	0
Total	98	634	71	26	159	89	117	1	28	795	160	2
Grand Total	169	1237	157	40	361	157	236	3	58	1640	334	5
Approach%	10.5	77.2	9.8	2.5	47.7	20.7	31.2	0.4	2.8	80.5	16.4	0.2
Total%	3.5	25.3	3.2	0.8	7.4	3.2	4.8	0.1	1.2	33.6	6.8	0.1

A4

## Peak hour analysis for the period 16:30 to 17:15

Volume	99	617	75	13	205	79	125	3	34	847	174	3	152	70	33	6
Approach%	12.3	76.7	9.3	1.6	49.8	19.2	30.3	0.7	3.2	80.1	16.4	0.3	58.2	26.8	12.6	2.3
Total%	3.9	24.3	3.0	0.5	8.1	3.1	4.9	0.1	1.3	33.4	6.9	0.1	6.0	2.8	1.3	0.2
PHF													0.94			0.85

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## Level Of Service Computation Report

Intersection #1: SR-67/Main St &amp; Day St/Ramona St

Critical Vol./Cap.(X): 0.946

Average Delay (sec./Veh.): 40.5

Optimal Cycle: OPTIMIZED

Level Of Service:

Street Name: State Route 67 / Main Street

Approach: North Bound / South Bound

Movement: L - T - R L - T - R

Control: Protected

Rights: Include

Min. Green: 5 5 5 5 5 5

Lanes: 1 0 1 0 1 0 1 0 1 0 0 1

Volume Module:

Base Vol.: 34 847 174

Growth Adj.: 1.00 1.00

Initial Bse.: 34 847 174

PasserByVol.: 0 0

Initial Fut.: 34 847 174

User Adj.: 1.00 1.00

PHF Adj.: 0.95 0.95

PHF Volume: 36 892 183

Reduce Vol.: 0 0

Reduced Vol.: 36 892 183

PCE Adj.: 1.00 1.00

MUF Adj.: 1.00 1.00

Final Vol.: 36 892 183

Saturation Flow Module:

Sat/Vol.: 1900 1900 1900

Adjustment: 0.93 0.98 0.83

Lanes: 1.00 1.00 1.00

Final Sat.: 1768 1862 1583

Capacity Analysis Module:

Vol/Sat: 0.02 0.48 0.12

Critic Moves:

Green/Cycle: 0.09 0.51 0.51

Value/Cap: 0.24 0.95 0.23

Uniform Del: 57.6 31.6 18.6

IncrementDel: 0.8 17.7 0.1

InitQueueDel: 0.0 0.0 0.0

DelayAdj: 0.94 0.32 0.42

User DelAdj: 1.00 1.00 1.00

AdjDel/Veh: 54.8 27.7 6.0

LOS by Move: D C A F A F D F D

HCM2/AVGQ: 1 34 2 7 5 13 13 1 16 16 S

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## Level Of Service Computation Report

Intersection #2: SR-67/Main St &amp; Pala St.

Critical Vol./Cap.(X): 0.946

Average Delay (sec./Veh.): 40.5

Optimal Cycle: OPTIMIZED

Level Of Service:

Street Name: State Route 67 / Main Street

Approach: North Bound / South Bound

Movement: L - T - R L - T - R

Control: Uncontrolled

Rights: Include

Lanes: 1 0 0 1 0 1 0 0 1 0 0 1

Volume Module:

Base Vol.: 61 983

Growth Adj.: 1.00 1.00

Initial Bse.: 61 983

Added Vol.: 0 0

PasserByVol.: 0 0

Initial Fut.: 61 983

User Adj.: 1.00 1.00

PHF Adj.: 0.95 0.95

PHF Volume: 64 1035

Reduct Vol.: 0 0

Final Vol.: 64 1035

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxx

FollowUpMod: 2.2 xxxx xxxx

Capacity Module:

Conflict Vol.: 64 1035

Potential Cap.: 889 xxxx xxxx

MoveCap.: 660 xxxx xxxx

Volume/Cap.: 0.07 0.00 xxxx

Level Of Service Module:

2Way5StHQ: 0.2 xxxx xxxx

Control Del: 9 4 xxxx xxxx

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT - LTR - RT

SharedCap.: xxxx xxxx xxxx

Shrd ConDel: xxxx xxxx xxxx

Shared LOS: \* \* \*

ApprachDel:

xxxxxx

Control Del: 1 0 0 0 0 0 0 0 0 0 0 0

Loss by Move: A \* \* \*

Movement: LT

2000 HCM Operations Method (Future Volume Alternative)													
Intersection #1 SR-67/Main St. & Day St./Ramona St.													
Cycle (sec):	90	Loss Time (sec):		16	(Y=R=4, 0 sec)	Critical Vol.:	Cap. (X):	0.703	Average Delay (sec/veh):		20.6	C	
Optimal Cycle: OPTIMIZED	90	Level of Service:		AA	AA	AA	AA	AA	Day Street / Ramona Street		AA	AA	
Street Name:	State Route 67 / Main Street	North Bound		South Bound	East Bound		West Bound		L - T - R		L - T - R	L - T - R	
Approach:	North Bound	Movement:		South Bound	Movement:		Movement:		L - T - R		L - T - R	L - T - R	
Control:	Protected	Protected		Incuse	Incuse		Split Phase		Split Phase		Split Phase		
Volume Module:	Base Vol.:	10	545	58	84	776	43	64	28	35	227	55	128
Growth Adj.:	Initial Base:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	10	545	58	84	776	43	64	28	35	227	55	128	C
Added Vol.:	0	0	0	0	0	0	0	0	0	0	0	0	0
Passer Vol.:	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Pct.:	10	545	58	84	776	43	64	28	35	227	55	128	AA
User Adj.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj.:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	11	574	61	88	817	45	67	29	37	239	58	135	AA
Reduced Vol.:	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol.:	11	574	61	88	817	45	67	29	37	239	58	135	AA
PCE Adj.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MFL Adj.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	11	574	61	88	817	45	67	29	37	239	58	135	AA
Saturation Flow Module:													
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.93	0.98	0.83	0.93	0.92	0.92	0.95	0.95	0.95	0.83	0.94	0.83	
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	0.90	0.94	0.90	
Final Sat.:	1769	1862	1533	1769	1325	184	1251	547	1583	1440	349	1583	AA
Capacity Analysis Module:													
Vol/Sat:	0.01	0.31	0.04	0.05	0.25	0.25	0.05	0.05	0.05	0.02	0.17	0.09	
Crit Moves:	***	***	***	***	***	***	***	***	***	***	***	***	
Green/Cycle:	0.09	0.44	0.44	0.44	0.42	0.42	0.08	0.08	0.08	0.06	0.24	0.24	
Volume/Cap:	0.06	0.70	0.09	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	
Urban/Del:	37.2	20.5	14.8	40.9	20.4	20.4	40.6	40.6	40.6	39.3	31.5	28.7	
Incr/Del:	0.2	0.8	0.1	16.4	0.7	0.7	15.1	15.1	15.1	5.3	5.3	0.6	
Incr/Del:	0.2	0.8	0.1	16.4	0.7	0.7	15.1	15.1	15.1	5.3	5.3	0.6	
Delay Adj.:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Delay/Veh.:	34.8	12.2	7.1	55.5	11.4	11.4	55.6	55.6	55.6	16.8	16.8	29.3	
User Del.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Del.:	13.4	8.2	7.1	55.2	11.4	11.4	55.6	55.6	55.6	16.8	16.8	29.3	
LOS by Move:	C	A	B	B	B	B	D	D	D	D	D	D	
LOS by Move:	0	10	1	4	7	7	4	4	4	9	9	3	

2000 HCM Operations Method (Future Volume Alternative)												
Intersection #1 SR-67/Main St. & Day St./Ramona St.												
Cycle (sec):	90	Critical Vol.: Cap. (X):		0.703								
Loss Time (sec):	16 (Y=Rx=4, 0 sec)	Average Delay (sec/veh):		20.6								
Optimal Cycle: OPTIMIZED		Level of Service:		C								
Street Name:	State Route 67 / Main Street	Day Street / Ramona Street										
Approach:	North Bound	South Bound		East Bound		West Bound						
Movement:	L - T - R	L - T - R		L - T - R		L - T - R						
Control:	Protected	Protected		Split Phase		Split Phase						
Volume Module:	Base Vol:	10	545	58	84	776	43	64	28	35	227	55
	Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.28
	Initial Base:	10	545	58	84	776	43	64	28	35	227	55
	Added Vol:	0	0	0	0	0	0	0	0	0	0	0
	Passer Vol/Vol:	0	0	0	0	0	0	0	0	0	0	0
	Initial Pct:	10	545	58	84	776	43	64	28	35	227	55
	User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
	PHF Volume:	11	574	61	88	817	45	67	29	37	239	58
	Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0
	Reduced Vol:	11	574	61	88	817	45	67	29	37	239	58
	PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	MFL Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Final Vol.:	11	574	61	88	817	45	67	29	37	239	58
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.93	0.98	0.83	0.93	0.92	0.42	0.08	0.08	0.08	0.24	0.24	
Lanes:	1.00	1.00	1.00	1.00	1.00	0.59	0.59	0.70	0.70	0.70	0.70	
Final Sat.:	1769	1862	1533	1769	1325	184	1251	547	1583	1440	349	1583
Capacity Analysis Module:												
Vol/Sat:	0.01	0.31	0.04	0.05	0.25	0.25	0.05	0.05	0.02	0.17	0.17	
Crit Moves:	***	***	***	***	***	***	***	***	***	***	***	
Green/Cycle:	0.09	0.44	0.44	0.44	0.42	0.42	0.08	0.08	0.08	0.24	0.24	
Volume/Cap:	0.06	0.70	0.09	0.70	0.72	0.42	0.07	0.07	0.07	0.24	0.24	
Urban/Del:	37.2	20.5	14.8	40.9	20.4	20.4	40.6	40.6	39.3	31.5	31.5	
Incr/Del:	0.2	0.8	0.1	16.4	0.7	0.7	15.1	15.1	5.3	5.3	5.3	
Incr/Del:	0.2	0.8	0.1	16.4	0.7	0.7	15.1	15.1	5.3	5.3	5.3	
Delay Adj:	0.93	0.48	0.48	0.95	0.5	0.5	0.0	0.0	0.0	0.0	0.0	
Delay/Veh:	34.8	12.2	7.1	55.5	11.4	11.4	55.6	55.6	40.7	64.8	29.3	
User Del:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
User Del:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
LOS by Move:	C	A	B	B	B	E	D	D	D	N	N	
LOS by Move:	0	10	1	4	7	7	4	4	1	9	3	

2000 HCM Operations Method (Future Volume Alternative)													
Intersection #1 SR-67/Main St. & Day St./Ramona St.													
Cycle (sec):	90	Loss Time (sec):		16	(Y=R=4, 0 sec)	Critical Vol.:	Cap. (X):	0.703	Average Delay (sec/veh):		20.6	C	
Optimal Cycle: OPTIMIZED	90	Level of Service:		AA	AA	AA	AA	AA	Day Street / Ramona Street		AA	AA	
Street Name:	State Route 67 / Main Street	North Bound		South Bound	East Bound	West Bound	AA	AA	West Bound		AA	AA	
Approach:	North Bound	L	-	T	R	L	-	T	R	L	-	T - R	
Movement:	North Bound	1	0	1	1	0	1	0	0	1	0	0	
Control:	Protected	Protected	Include	Include	Include	Include	Split Phase	Split Phase	Include	Include	Split Phase	Split Phase	
Volume Module:	Base Vol.:	10	545	58	84	776	43	64	28	35	227	55	
Growth Adj.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	10 545	58	84	776	43	64	28	35	227	55	128		
Added Vol.:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	
Passer Vol/Vol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	
Initial Pct.:	10 545	58	84	776	43	64	28	35	227	55	128		
User Adj.:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj.:	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95
PHF Volume:	11 574	61	88	817	45	67	29	37	239	58	135		
Reduced Vol.:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Reduced Vol.:	11 574	61	88	817	45	67	29	37	239	58	135		
PCE Adj.:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MFL Adj.:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	11 574	61	88	817	45	67	29	37	239	58	135		
Saturation Flow Module:	Sat./Lane:	1900 1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93 0.98	0.83	0.93	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lanes:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1769 1862	1533	1769	1325	184	1251	547	1583	1440	349	1583	1583	1583
Capacity Analysis Module:	Vol/Sat.:	0.01 0.31	0.04	0.05 0.25	0.25	0.05	0.05	0.05	0.05	0.02	0.17	0.17	0.09
Crit Moves:	***	***	***	***	***	***	***	***	***	***	***	***	***
Green/Cycle:	0.09	0.44	0.44	0.44	0.44	0.42	0.42	0.42	0.42	0.08	0.08	0.08	0.24
Volume/Cap.:	0.06	0.70	0.09	0.70	0.09	0.59	0.59	0.59	0.59	0.70	0.70	0.70	0.36
Uniform Del.:	37.20	20.5	14.8	40.9	20.4	20.4	40.6	40.6	39.3	31.5	31.5	31.5	28.7
Incr/Del.:	0.2	0.8	0.1	16.4	0.7	0.7	15.1	15.1	14.4	5.3	5.3	5.3	0.6
Incr/Del.:	0.2	0.8	0.1	16.4	0.7	0.7	15.1	15.1	14.4	5.3	5.3	5.3	0.6
Delay Adj.:	0.93 0.48	0.48	0.95	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.83
Delay/Veh.:	34.8 12.6	7.1	55.5	11.4	11.4	55.6	55.6	40.7	40.7	16.8	16.8	16.8	29.3
User Del.:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
User Del.:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
LOS by Move:	C A	B B	E E	D D	D D	D D	D D	D D	D D	D D	D D	D D	C
LOS by Move:	0 10	1 1	4 4	7 7	4 4	9 9	1 1	9 9	3 3	9 9	3 3	9 9	3 3

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 SR-67/Main St &amp; Day St/Ramona St

Cycle (sec): 135 Critical Vol./Cap. (X): 0.947

Loss Time (sec): 16 (Y=R=4.0 sec) Average Delay (sec/veh): 40.6

Optimal Cycle: OPTIMIZED

Level Of Service: D

Street Name: State Route 57 / Main Street

Approach: North Bound South Bound West Bound

Movement: L - T - R L - T - R L - T - R

Control: Protected

Split Phase

Include

Min. Green: 5 5 5 5 5 5 5 5 5

Lanes: 1 0 1 0 1 0 1 0 0 1 0 0 1 0 0 1

Volume Module:

Base Vol.: 34 847 174 99 617 77 153 70 33 205 79 125

Growth Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 34 847 174 99 617 77 153 70 33 205 79 125

PasserByVol.: 0 0 0 0 0 0 0 0 0 0 0

Initial Fut.: 34 847 174 99 617 77 153 70 33 205 79 125

User Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj.: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 36 992 183 104 649 91 161 74 35 216 83 132

Reduced Vol.: 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol.: 36 892 183 104 649 81 161 74 35 216 83 132

PCE Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MFU Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol.: 36 892 183 104 649 81 161 74 35 216 83 132

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.98 0.81 0.93 0.92 0.92 0.93 0.95 0.95

Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat.: 1769 1862 1583 1763 13092 386 1235 565 1583 1297 500 1583

Capacity Analysis Module:

Vol/Sat: 0.02 0.48 0.12 0.05 0.21 0.21 0.13 0.13 0.02 0.17 0.17 0.08

Crit Moves: \*\*\*\*

Green/Cycle: 0.09 0.51 0.51 0.06 0.48 0.48 0.14 0.14 0.14 0.18 0.18

Volume/Cap: 0.24 0.95 0.23 0.95 0.44 0.44 0.95 0.95 0.16 0.95 0.47

Uniform Del: 57.7 31.6 18.6 63.1 22.8 22.8 57.7 57.7 51.3 55.0 55.0 50.0

IncrementDel: 0.8 17.8 0.1 68.7 0.2 0.2 42.5 42.5 0.3 36.6 36.6 1.3

InitCusDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj.: 0.94 0.32 0.32 0.36 0.36 0.36 1.00 1.00 1.00 1.00 1.00 1.00

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDelVen: 54.9 27.9 6.1 129.0 8.8 8.8 100.2 100 51.7 91.6 91.6 51.3

LOS by Move: D C A F A F D F D

HCM/RAvgQ: 1 34 2 7 5 13 12 1 16 16 5

\*\*\*\*\*

Intersection #2 SR-67/Main St &amp; Pala St

Cycle (sec): 135 Critical Vol./Cap. (X): 0.947

Loss Time (sec): 16 (Y=R=4.0 sec) Average Delay (sec/veh): 40.6

Optimal Cycle: OPTIMIZED

Level Of Service: D

Street Name: State Route 67 / Main Street

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R

Control: Uncontrolled

Rights: Stop Sign

Lanes: 1 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1

Volume Module:

Base Vol.: 63 983 22 33 654 23 2 3 41 5 0 41

Growth Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 63 983 22 33 654 23 2 3 41 5 0 41

Added Vol.: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol.: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Put: 63 983 22 33 654 23 2 3 41 5 0 41

User Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj.: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 66 1035 23 35 688 24 2 3 43 5 0 43

Reducut Vol.: 0 0 0 0 0 0 0 0 0 0 0 0

Final Vol.: 66 1035 23 35 688 24 2 3 43 5 0 43

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxx xxxx

FollowUpTm: 2.2 xxxx xxxx xxxx

Level Of Service Module:

2WayStHQ: 0.2 xxxx xxxx xxxx

Conflict Vol.: 72.3 xxxx xxxx xxxx

Potential Cap.: 889 xxxx xxxx xxxx

Move Cap.: 881 xxxx xxxx xxxx

Volume/Cap.: 0.08 xxxx xxxx xxxx

0.05 xxxx xxxx xxxx

0.06 xxxx xxxx xxxx&lt;/

03/24/2009  
10:23:22

CALTRANS TRAFFIC VOLUMES  
MONTHLY AVERAGE DAILY TRAFFIC L R AND I FACTORS

DISTRICT	COUNTY	ROUTE	POSTMILE	-	LEG	Traffic Station	:	899								
DIR	DAY	FACTORS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ADDT	
Location Description																
11	SD	(067)	024.376	-	B											
(JCT. RTE. 78)																
N	SUN															
N	SUN															
N	MON															
N	TUE															
N	WED															
N	THU															
N	FRI															
N	SAT															
	Avg															
S	SUN															
S	MON															
S	TUE															
S	WED															
S	THU															
S	FRI															
S	SAT															
	Avg															
S	SUN															
T	MON															
T	TUE															
T	WED															
T	THU															
T	FRI															
T	SAT															
	Avg															
	I Factors															
	R * I															

3/24/09

Cerro - Lotita Vega

2008 - 23,449

27936 28398 2007

28398 2007

DISTRICT	COUNTY	ROUTE	POSTMILE	-	LEG		Traffic Station	:	972
Location Description							Location Type	:	T
POWAY ROAD							Lanes	:	North 1
DIR	DAY	L	-	R	FACTORS				
N	SUN	0.744	0.065	8586	8483	9915	9418	10116	10012
N	MON	1.010	0.012	12468	12881	13098	12929	12917	13051
N	TUE	1.048	-0.003	13174	13104	13560	13371	13158	13469
N	WED	1.062	0.003	13258	13514	13563	13267	13691	13370
N	THU	1.073	0.017	13289	13332	13872	13640	13599	13479
N	FRI	1.121	0.008	13871	14422	14246	14395	14719	14614
N	SAT	0.941	0.050	11323	12261	12213	11837	12431	12047
Avg		1.000	0.022	12281	12571	12924	12736	12887	12934
S	SUN	0.789	0.039	9359	9152	10772	10406	11023	10549
S	MON	1.025	0.012	12948	13277	13426	13252	13159	13356
S	TUE	1.058	0.028	13299	13346	13581	13519	13333	13679
S	WED	1.058	0.007	13361	13777	13650	13729	13340	13630
S	THU	1.060	0.027	13246	13328	14017	13657	13702	13906
S	FRI	1.092	0.026	13600	14071	14352	14118	14323	14005
S	SAT	0.918	0.052	11115	11959	12078	11816	12495	12101
Avg		1.000	0.027	12418	12701	13125	12928	13054	13115
T	SUN	0.767	0.052	17945	17635	20687	19824	21139	20561
T	MON	1.018	0.012	25416	26158	26524	26181	26076	26407
T	TUE	1.053	0.013	26473	26450	27141	26890	26491	27148
T	WED	1.060	0.005	26619	27291	27213	27292	26607	27597
T	THU	1.067	0.022	26535	26660	27889	27297	27301	27459
T	FRI	1.106	0.017	27471	28493	28598	28513	29042	29020
T	SAT	0.930	0.051	22438	24220	24291	23653	24926	24148
Avg		1.000	0.025	24700	25272	26049	25664	25940	26049
I Factors				-1.247			0.265		25584
R * I				-0.031			0.007		25398
							0.140		25296
							0.003		26033
									0.844
									0.021

2007

25495

Colton - Nella Vega  
3/24/09

A10

Colton - Nella Vega  
2008 - 25005

Attachment E



County of San Diego

DEPARTMENT OF PUBLIC WORKS

JOHN L. SNYDER  
DIRECTOR

5201 RUFFIN ROAD, SUITE D  
SAN DIEGO, CALIFORNIA 92120-4310  
(619) 694-2030 FAX: (619) 694-3928  
Web Site: sdcounty.ca.gov/dpw/

RICHARD E. CROMPTON  
ASSISTANT DIRECTOR

March 3, 2009

Tri-Dimensional Engineering, Inc.  
Attn: Ernest H. Grabbe Jr.  
P.O. Box 791  
Poway, CA 92074

Dear Mr. Grabbe:

REQUEST FOR MODIFICATION TO THE PUBLIC ROAD STANDARDS, TM 5535 /  
STP 07-021

Department of Public Works (DPW) has reviewed your December 1, 2008, request for a modification to Section 6.1.C of the County of San Diego Public Road Standards to allow a reduction in the required intersectional separations between the proposed private access driveway and Pala Street.

DPW is able to support your request. It has been determined that your request for exception will not adversely affect the safety or flow of traffic in this area.

If you have any questions or need additional information, please contact Richard Lantis, DPW Project Manager, at (619) 495-5604 or e-mail at [Richard.Lantis@sdcounty.ca.gov](mailto:Richard.Lantis@sdcounty.ca.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Richard E. Crompton".

RICHARD E. CROMPTON  
Assistant Director

REC:RL:y/l